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ABSTRACT

Purposes of this document are to present a broad view of migrant education which would inform educators of the current practices and procedures being employed and to provide impetus for more and better migrant education programs. The scope of this research synthesis encompasses the age range of the migrant (and his education) from cradle to adulthood. An overview of the migrant describes his economic status, family-unit philosophy, habits and living conditions, educational level, and social status. It is noted that education could help the migrant to broaden his capacities and master new skills. Existent migrant programs which provide elementary, secondary, and adult education are discussed, and emphasis tends to be on individualized instruction, English as a second language, and oral language development. The author devotes sections of his monograph to administrative developments such as interstate cooperation and record transfers, educational testing programs, health education, parental involvement in education, teacher training, and teacher aides in migrant education. Unmet needs in the education of migrants, recommendations emerging from research in terms of general education and curricula for migrants, and specific areas for needed research are presented in concluding pages of the document. (AN)

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A SYNTHESIS OF CURRENT RESEARCH IN MIGRANT EDUCATION

by

James O. Schnur, Ed.D.
Assistant Professor of Education
State University College of Arts and Science
Geneseo, New York

EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
CLEARINGHOUSE ON RURAL EDUCATION AND SMALL SCHOOLS (CRESS)

New Mexico State University
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CONTENTS

Page

INTRODUCTION

PART ONE: AN OVERVIEW

A. General Description of Migrants 1
What are some of the characteristics of migrants? 1
Why do they migrate? 2
What does the future hold for migrants? 2

B. General Description of the Educational Problems of Migrants 3
What are the present problems? 3
Specifically, what are the migrants' language-related problems? 4
What is the best estimate of the migrants' present educational achievement level? 4

C. Analysis of the Migrant Child in the School Society 5

PART TWO: EXISTENT PROGRAMS

A. Day-care Centers 5

B. An Overview of Migrant Programs in the Elementary School 6
What is the curricular emphasis? 6
What of class size? 6
What of instructional approaches for elementary-school-age migrant children? 7
What are the states doing about providing an elementary school education for migrant youngsters? 8

C. Programs Dealing Specifically with Migrant Children at the Primary Level 12
What are reported as the most effective activities? 13

D. Programs Dealing Specifically with Migrant Children at the Intermediate Grade Levels 14
What are reported as the most effective activities? 14

E. Programs for Migrant Students at the Secondary Level 15
Why do migrant youth drop out of school? 16
Are there special programs to meet young migrants' needs? 16
What are reported as the effective activities in secondary programs? 17

Page

F. Migrant Adult Education Programs 18
What learning experiences are incorporated in migrant adult education programs? 18

G. Interstate Cooperation for the Education of Migrant Children 19
What is the overview? 19
What is being done in the area of record transfers? 20

H. Educational Testing Programs for Migrants 21
What are procedures and procedural recommendations for test administration? 21
What observations have been based upon test data? 22

I. Health Education for Migrants 23

J. Parental Involvement in Education 24

K. Teacher Training Programs 25

L. Teacher Aides in Migrant Education 27

PART THREE: PROJECTIONS

A. Unmet Needs in the Education of Migrants 28

B. Recommendations Emerging from Research Reported in This Synthesis 30

C. Further Considerations 33

REFERENCES 35

INTRODUCTION

The purpose of this research monograph is to present a current, broad view of migrant education informing educators of the current practices and procedures now being employed. It is hoped that this information will provide the impetus for more and better migrant education programs, as well as pointing to directions for improvement of existing programs. It is also hoped that this monograph will eliminate the need for developing such programs "from scratch" through the presentation of these past and present approaches. The scope of this synthesis encompasses the chronological age range of migrant education from cradle to adulthood.

The reader should keep the following points in mind as he proceeds through this monograph:

1. A great many of the opinions reported in this study are not supported by empirical evidence. Research in migrant education is apparently in its infancy, and much of the material is of a descriptive or philosophical nature.
2. In general, research conducted prior to 1965 is not included in this synthesis.
3. It is not possible to summarize the findings of all available research and philosophical discussions in a monograph of this size. It was necessary for the author to make certain choices and selections. The reader is urged to consult the sources in their original form for more complete discussions and presentations.

Appreciation is expressed to Dr. Everett D. Edington, Director, ERIC Clearinghouse on Rural Education and Small Schools, New Mexico State University, for commissioning the writing of this research synthesis; and to Dr. Gloria Mattera, Director, New York State Center for Migrant Studies, State University College of Arts and Science, Geneseo, for her encouragement and assistance.

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January 1970

James O. Schnur

PART ONE

AN OVERVIEW

A. General Description of Migrants

What are some of the characteristics of migrants?

While not an area completely encompassed in the scope of migrant education, an initial look at the migrant in general seems appropriate. Much current educational procedure has task analysis or analysis of the learner as its first step. Only after such diagnosis can educational treatment be intelligently prescribed.

Orr *et al.* (38) presented one of the most comprehensive pictures of the migrant: The migrant adults are sub-par in income and language competencies, and their transiency makes change difficult. This disadvantaged syndrome is perpetuated by raising migrant children within these confines and limitations. It is further stated that most migrants are members of a "minority" ethnic group; this adds discrimination to their already heavy burden.

The following specific points were made regarding the migrant within the scope the study by Orr *et al.*—conducted under the auspices of the Colorado State Department of Education—which surveyed Arizona, Colorado, New Mexico, and Texas:

1. Some 85 percent of the migrants were of Spanish American ancestry.
2. The average family consisted of six children plus other related adults.
3. Family unity is very strong.
4. The migrants tend to seek employment for the total family, including older children.
5. There are few unattached males in this population.
6. Permanent homes, where existent, are generally inadequate with much overcrowding.
7. Migrant camps range from acceptable to deplorable.
8. Educational level is very low.
9. Their subculture is not easily compatible with "accepted" values.
10. Annual income is very low.
11. Migrants are not fervent about religion. They are not blindly subordinated to the clergy.
12. The strong family unity does not extend to kin not in the immediate family.
13. Migrants are necessarily preoccupied with making a living.
14. They are very "present"-time oriented.
15. Migrants tend to be very passive.
16. Contentment seems to prevail within the family unit.

Rodriguez (41) supported this picture of the Mexican American migrant in his descriptive study which showed migrants to be of low level in education and income,

and in possession of little nonfarm work experience. Yet he found them to be satisfied with farm labor. He did discover that they have a feeling of alienation from society.

Southard (48) also stated that migrants are present-oriented. A further ramification of this is the fact that the strengths and weaknesses of their heritage are forgotten as a result of their concern only for the present. This would lead to their identification as a culture without a heritage.

In a study of migrants in Florida, Kleinert (25) stated that migrants really defy classification. He saw them as a very diverse group in which only a very few really enjoy their lives. He further described migrants as being the poorest educated, poorest paid single category of workers in the national economy. Kleinert indicated that even the ghetto dweller comes out ahead of the migrant in level of education and income. He stated that few migrants have even heard of, much less used, programs of social assistance. Kleinert identified three discrete migrant subcultures found in Florida:

Lowest — the travelling single male (often middle-aged and alcoholic).
Middle — the Negro family.
Highest — the Texas Mexican family.

Why do they migrate?

The 1969 report of the U.S. Senate Subcommittee on Migratory Labor (52) disclosed that migrants number approximately 276,000. These migratory workers made up a small proportion of the total farm wage force in the United States, but they made up a large proportion of the hired farm workers employed on labor-intensive crops in areas where local labor was not available in the quantity demanded.

Browning and Northcutt (6) reported the major cause of migrancy as the inability of these people to secure regular employment in their home communities. These authors listed the following among the causes of this situation: mechanization, crop allotments, soil banks, and high birth rate.

Bryce (7) stated that if the workers in his sample had stayed in Florida and had been able to secure steady employment in their home base, they would have been more than $400 ahead at the end of the season.

What does the future hold for migrants?

Hooper (22) stated that, as of 1967, only 40 percent of the nonwhites entering the rural labor force could expect to be supported by the rural economy.

Orr *et al.* (38) indicated that migrancy as a phenomenon may well disappear as the result of increased mechanization and the employment of local farm help for machine-related work. Unlike the phenomenon of migrancy, however, the people who presently make up the migrancy force will not disappear.

Segalman (44) paints the bleakest scene within this prognosis. He sees the migrant streams continuing to flow but the sources of employment becoming more and more scarce as a result of mechanization. He presents a new factor also when he states that

agricultural technology has added another threat to the persistent problems of machines and the big farm—this is, the threat of the competition of new migrants, formerly low-income small farm owners, who are now thrown into the migrant stream. It is Segalman's contention that today's farm worker cannot survive the industrial revolution in agriculture unless he broadens his capacities and masters new skills. For employment, the migrant will need skill, flexibility, and the ability to adapt himself to change. Segalman concludes by stating that migrants still in the stream will be in a stream which leads nowhere. Someone will have to help them adapt to a new scene; otherwise, they and their families will become an added pressure upon America's "inner cities."

B. General Description of the Educational Problems of Migrants

What are the present problems?

The educational problems of migrants are numerous. It becomes obvious after the brief description in the last section that education is at least a partial possible salvation for the migrant. In soliciting the concerned educator to offer his professional help, a survey of educational problems as they presently exist is now germane.

In a study of migrant workers in southeast Oklahoma, Tinney (55) presented the following findings:

1. Many migrant youngsters were overage for their respective grade levels, often by as much as three or four years.
2. As grade level ascended toward secondary school, the number and percentage of migrant students enrolled in school declined.
3. Figures revealed that no more than 5 percent of the migrants surveyed reached the high school level.
4. The phenomenon of many children from the same family being enrolled in the same grade was observed to be quite common.
5. Crop vacations (school closing to allow students time to harvest crops) frequently caused migrants to lose out on education.

Stockburger (51), in Fact Sheet #3 produced by the National Committee on the Education of Migrant Children, called attention to these aspects of the migrants' educational lives: they are in school for two or three, at the most four or five, months out of the year; they are retarded in grade achievement and unreached by common teaching practices; they are frequently considered ineligible for school enrollment.

Soderstrom (47) added the following to the basic list of migrant educational problems: they are highly mobile; they live in a limited cultural environment; language differences exist; there is a great loss of school time; and retardation as a result of lost school time gives rise to migrant students leaving school earlier than resident students.

The Oklahoma State Department of Education (37), in 1968, discovered that only one-third of migrant adults interviewed were able to read and write English. Fewer than one-half could read and write Spanish, even though it was their primary language. This

study supported Soderstrom (47) and Tinney (55) in their identification of the migrants' inadequate command of the English language, while adding the following problematic needs: proper nutrition, adequate social adjustment, proper physical hygiene, thoughtful curricular planning, and utilization of bilingual personnel. These needs were also identified in the Office of Education's Title I ESEA Report (36). Further, the language problem was identified by Caperton and Fitzpatrick (9).

Also reported among the educational problems of migrants were low motivation and poor health [Moore and Schufletowski (30), Caperton and Fitzpatrick (9)]; compulsory education laws seldom covering these nonresident citizens [Office of Education's Title I ESEA Report (36), Croft (11)]; failure being the commodity most provided to the migrant by the school [Kleinert (25)]; the lack of proper clothing and lack of necessary school supplies [Caperton and Fitzpatrick (9)]; the lack of listening skills, the need for adjustment to the classroom situation, the lack of the student's ability to recognize consistent self and group discipline, and the need to develop appreciation for and understanding of the student's role in the community [Harris (18)].

Specifically, what are the migrants' language-related problems?

It should be readily evident from the preceding description of problematic factors that language is very high on the list of problems. Goodwin (16) relates the opinion of the British sociologist, Bernstein, to this situation. In comparing the language of the lower-class adults to middle-class adults, Goodwin describes the speech of lower-class adults as a linguistic code which is suited to maintaining social relationships but which is unsuited for sharing familiar experiences and opinions, for analysis and careful reasoning, for dealing with anything hypothetical and beyond the present, or for dealing with anything very complex. A study by Haviland (19) further supports the importance of the migrant child being helped to speak standard English rather than the nonstandard form of the language he commonly uses. Southard (48) adds the concurring opinion that migrant speech patterns are not linguistically accurate. Migrants tend to develop their own unique colloquialisms. The result of this is that migrant students tend to be nonverbal because of their inability to communicate adequately.

With regard to reading, Marcson (26) made some interesting discoveries. Of the migrants studied in a sample of 168, some 62 were found to be retarded approximately two years in reading. A high correlation was found between the mother's reading level (black migrant) and the mother's opinion that a high school education or better is necessary to success and survival in contemporary society. As a cross-sectional problem, Marcson also made the statement that no youth culture exists in migrant society.

What is the best estimate of the migrants' present educational achievement level?

Moore (30) found that the average adult migrant has a formal education of about the fifth-grade level. Along with this, many migrants are found—as reported by Moore (30) and the Oklahoma State Department of Education report (37)—who have only a speaking knowledge of English or no knowledge at all. Fewer still read or write either

English or Spanish. On the Florida scene, Browning and Northcutt (6) found the median grade completed by adult migrant workers to be 6.4. These researchers observed a tendency for adult females to have more education than adult males. Hooper (22) indicated that the average achievement for nonwhites, 25 years and older in seven southeastern states, ranged from a low of 5.9 grade level to 7.0 as the high.

The results of the educational problems cited in this section become obvious in terms of adult educational achievement level. The migrant is not being equipped with the basic tools of survival or success to enable him to compete with the mainstream of American society.

C. Analysis of the Migrant Child in the School Society

Although this topic was touched upon in the preceding section, the author discovered a few reports which shed specific light upon some of the ramifications of the life of the migrant in school.

Heffernan (20) makes quite a point of stressing how the migrant youngsters' differences from norms in the classroom—with regard to clothing, language, and cleanliness—have a negative effect upon their achievement and adjustment. Migrant youngsters have been taught how to act and conform to their migrant subculture, but this often becomes unacceptable to the classroom situation. Kleinert (25) further pursues this analysis by stating that the migrant child learns he is an outcast from society as soon as he begins school. His constant companion as he moves from new area to new area, new school to new school, is fear. Stockburger (51) appears to be in agreement, pointing out that moving from community to community the migrant makes no friends and forms no ties to school, teachers, or classmates. He never has a place in the "caste system" of resident children. Schools, at present, cannot make migrant children feel wanted; therefore, schools cannot educate these students. The fact that migrant students cannot afford the additional costs, as pointed to by Orr *et al.* (38), adds to the observed fact that there is little or no participation in school activities by these youngsters. An even more basic cost factor is reported by Tinney (55) in the existent policy of some school systems to provide no free lunches or free school supplies.

PART TWO

EXISTENT PROGRAMS

A. Day-care Centers

Many programs reviewed for this research monograph included mention of day-care centers for migrant youngsters. The reader should not come to the conclusion that this is an aspect of all programs for the education of migrant children. Stockburger (50) pointed this up by stating that "Adequate day care, so urgently needed, is non-existent for most children." As might be expected, reported opinion ranges from positive to negative extremes on this issue.

Heffernan (20) expressed a favorable opinion of day-care centers specifically, and summer school programs in general for elementary-school-age children. Greco *et al.* (17), reporting to the New York State Joint Legislative Committee on Migrant Labor, indicated that the child-care center was a feature of the state program. Day-care centers were operated in migrant housing camps for children five years of age or younger, as reported by Benner and Reyes (2) with regard to California's migrant education program. Caperton and Fitzpatrick (9) reported that training and day-care centers were established in New Mexico projects. It was felt that this arrangement allowed the instructors, while caring for these children, to provide academic training and food-health services.

A somewhat more negative view of day-care centers was expressed by Kleinert (25). He stated that, most commonly, migrant parents view the total school situation in general as simply a day-care situation freeing them to work the fields without hindrance. This factor would appear to diminish educational carry-over from, or reinforcement for, the day-care program on the part of migrant parents.

B. An Overview of Migrant Programs in the Elementary School

Without a doubt, the elementary school level has received the most attention with regard to education of migrants. Scott (43)—in a survey of educational programs in existence for migrant students during 1967—indicated that of the 48,552 migrant students polled, some 39,428 were in elementary school programs.

What is the curricular emphasis?

The 1968 report of the California State Department of Education (8) strongly urged that emphasis in the migrant elementary curriculum be placed on English as a second language and on oral language development. Scott (43) indicated, in his national survey of migrant programs, that he found the major curricular emphasis in most programs to be directed toward the language arts, while arithmetic, science, and the social studies received less attention.

What of class size?

Caperton and Fitzpatrick (9) indicated that individual instruction conducted by instructional and noninstructional personnel was a feature of the schools they surveyed. Greco *et al.* (17), reporting on New York State migrant programs, discovered children being grouped with their age mates as in the typical graded-school setting. The classes were housed in public schools. These workers emphasized the importance of keeping class size small and advocated individualization of instruction as much as possible. The Oklahoma State Department of Education (37) reported classroom instruction as being ungraded regardless of age of the students.

It becomes apparent quickly that the perfect class size and setting has eluded educators of elementary school migrant youngsters as it has eluded educators of resident

elementary school students for decades. It would be safe to conclude, from the reports surveyed for this research monograph, that most migrant educators place high value on small class size and individualization of instruction.

What of instructional approaches for elementary-school-age migrant children?

Murphy (31) placed heavy emphasis upon easily achieved success in migrant educational programs. She also reported that home visitation by the teachers was effective. Tinney (55) indicated that the playground is one area where there was little or no educational problem at all.

McGowen (29) came out in strong support of field trips as having a high degree of educational relevance for migrant youngsters. He further reported that use of mini-buses was the best mode of transportation. These vehicles limited the size of groups and thus provided intimacy and versatility. Cameras were used by the migrant children and were found to provide excellent field-trip reinforcement. Varner (57) also endorsed field trips to such places as the zoo, the supermarket, schools, the health center, and the airport. He added a further positive dimension by pointing out that these trips created additional motivation for learning new words in the standard English language.

Mathews (27) endorsed a weekly-theme format. A weekly theme was carried out in all educational activities including the classroom situation, recreation, and field trips. Some of the themes used were the Wild West, Fiesta, and Fairy Tales. Activities related to the weekly theme were oral expression, vocabulary development, development of personal pride in achievement, self-expression, development of good work habits, remedial instruction, story motivation, and art work. Oral and written expression was conducted in Spanish and English. It was found that, with use of this approach, students were working below their frustration levels and were succeeding in school-oriented tasks; therefore, self-control was in force at all times. It was further disclosed that drama provided an excellent medium for self-expression.

Dr. Donald Miller developed the instructional approach which he labelled "one-trial teaching" in Goodwin's (16) report on the 1967 Bucknell Conference on Learning Problems of the Migrant Child. One-trial teaching is a learning unit and teaching process characterized as

1. Relating that which is occurring now, in the immediate present.
2. Being a small, discrete, and relatively self-contained unit of interaction.
3. Being basically noncumulative.
4. Having a unity of intrinsic meaning of its own such that it will not be viewed solely as a microscopic piece of a carefully graded sequence of instructional experience set forth in a curriculum guide.

The aims of one-trial teaching are

1. To achieve complete learning on the part of the student.
2. To instruct in small, relatively discrete, self-contained units with intrinsic meaning.

3. To perceive this learning as not being a cumulative entity part.
4. To achieve a teaching-learning interaction which has unity in a carefully graded sequence.

Some methods and materials which lend themselves to one-trial teaching are the new elementary science curriculum projects, single-concept film loops, and microteaching.

Schnur (42) conducted an empirical study investigating the possible improvement of problem-solving ability in migrant children. Specifically, this study sought to determine if the A Blocks portion of the Attribute Games and Problems Unit developed by the Elementary Science Study would enhance reflectively through modification of an impulsive conceptual tempo. The results of this study tend to support the conclusion that the A Blocks treatment did not significantly lengthen response-latency time or reduce the number of errors resultant from a picture-matching test. It appeared that if one's goal is to increase reflectivity, a more therapeutic approach—unstructured and designed to generate self-respect between the teacher and the migrant child—is to be preferred over the alternative treatment employed.

What are the states doing about providing an elementary school education for migrant youngsters?

The author does not mean to imply that only the states mentioned in the following section are involved in providing an elementary education for migrant children. This section simply reflects some of the available reports on such programs.

The Arizona Program

The Office of Education (36) reported on one feature of the Arizona migrant program at the elementary level. This was the development of a unit-type, no-textbook approach in a six-week summer project involving 40 teachers, 45 aides, and 382 children. Each child worked on his own resource book. In effect, no one enrolled late; for each student, school opened the day he arrived.

The California Program

As reported by Benner and Reyes (2), one of the unique features of the California program of elementary migrant education is the Mini-Corps. This Mini-Corps is staffed by college students hired as teacher assistants. One of the primary considerations for staff selection is the candidate's previous association with migrants. The three major objectives of this program with regard to these college students are

1. To encourage former migrants to continue their college education.
2. To provide a group of well-trained teacher assistants.
3. To increase these college students' interest in pursuing a career in teaching.

The Mini-Corps staff was given an intensive two-week pre-service training program while living in migrant camps. They then worked in summer programs for migrant youngsters and were able to provide necessary carry-over in these migrant camps.

Other features of this California program were the use of bilingual teacher aides, day-care centers, individual study programs, and complete integration of migrants within the classroom. After-school study centers were provided for individual and group instruction. Food service for migrant youngsters was provided, as well as medical service. Among the features of the recreational program were field trips to a big league baseball game and to a migrant track meet.

Braund *et al.* (4) also called attention to the integrative feature of the California program. The effort to achieve full integration of migrants into the mainstream of class activities resulted in the subjective observation that these migrant children gained rapidly in acculturation and language development. It was felt that this was achieved through the increased contact between migrants and their nonmigrant peers.

The Braund report (4) also mentioned California's Tutorial Language Development Project. Four centers were developed. Each center consisted of a conference room staffed with one teacher and one teacher assistant. Spanish-speaking youngsters were taken from their regular classrooms to the center for a specific amount of time each day. All centers employed an audiolingual approach. No conclusive objective evidence of success was included in this report.

Mathews (27), in reporting on California's Union District Migrant Education Project, described a program of four weeks' duration in which students enrolled for three periods of courses. The usual pattern found the youngster spending one period in remedial work with his project teacher and two periods enrolled in regular summer session classes.

The Florida Program

Pittman (40) described the Collier County program as employing techniques commonly used in the typical elementary classroom, especially with regard to reading. The elementary school principal was the key factor in implementation of this program.

Mr. Benjamin Stephenson (49), principal of the Markham School in Broward County, Florida, presented the characteristics of a Peer-Produced Multi-Sensory Learning Program developed by Dr. Ward Brunson and used by his staff. At present, this program encompasses only peer-produced books. The unique characteristics of peer-produced books are that

1. Content is totally peer-produced.
2. Reading vocabulary used is derived from the child's spoken vocabulary.
3. Content is based upon present vocabulary and interest of the child.
4. Content is kept within the limits of the child's experience.

The general procedure begins with obtaining of a story or response from a picture or other stimuli. The response elicited from the child is recorded on tape or written by

the teacher or student. One student may assist another in recording a story or response. The response is transcribed to paper, or recorded on tape. The story or response is then divided into sections representing pages of the book. The child or children then illustrate with a picture for each section. A title page and an ending page are also illustrated. A vocabulary list is made and put at the end of the story. The child's name, age, suite, etc. are included in the book. The story is typed with a primary typewriter on the page with the picture or on the opposite page. The book is then laminated and bound. The child reads his story onto a tape which is then placed on the library shelf along with the book, for readers and nonreaders alike to enjoy.

The impact of these peer-produced books is limited at present to subjective teacher judgment. Teachers report high student motivation to produce and read these books and feel it is helping reading, language, and general academic development. Some interesting empirical studies could well be designed to investigate this approach further.

The New Mexico Program

Caperton and Fitzpatrick (9) described the New Mexico program as providing special remedial instructional programs in English, mathematics, and English as a second language. Special programs provided food and health services, clothing services, waiver of fees for supplies and materials, and pupil personnel services. Special summer projects were also provided, including pre-school instruction. These projects were designed to complement and augment the curriculum of the schools where difficulties pertinent to migrants are encountered. Elements of success underlined all activities. Active participation of the children was sought in all situations. A program of home instruction was also developed and was especially convenient for those children with some fear of school or with those who did not want to attend regular classes.

Southard (48) tells of the New Mexico project called "Move Ahead." This consists of a daily radio program broadcast to all involved schools. The programs are designed to be supplemental to regular language instruction in English communication skills for Spanish-speaking youngsters. The lessons are designed to improve student attitude and raise aspiration levels through enforcement of self-image in the child's cultural setting. Trained teacher aides act as radio broadcast monitors and tutors. As with many of the migrant programs reported in this synthesis, no objective evidence supports its effectiveness. This is yet another area which could be investigated empirically.

The New York State Program

Garofalo (15) investigated New York State's migrant programs to determine whether they were achieving the state's objectives for migrant education. He concluded that the state's summer programs were helping in all of the five following objective areas:

1. Improvement of self-concept.
2. Development of social and academic skills.

3. Development of language ability and vocabulary.
4. Expansion of cultural experience.
5. Establishment of sound health and nutritional habits.

This determination came about through Garofalo's investigation of migrant compensatory education programs in twelve schools involving 495 subjects. As measured by objective tests, these subjects showed gains in traditional reading and arithmetic learning which averaged 150 to 230 percent above the average national expectancy for this period of time (usually six weeks). The programs were not described as employing any unique remedial methods or instructional organization.

The author would caution readers against making misleading inferences from percentages and to keep in mind that these are not statistical tests of significance.

The Texas Program

The Texas Education Agency (54) described the creation and implementation of six-month school projects. Several program designs encompassed by these and related projects were described. these are labelled the Enrichment Program and the Self-Contained Migrant Classroom.

The Enrichment Program is built upon the base of a regular school day. At the termination of the regular school day, an extra hour to hour-and-a-half is spent in providing migrants with additional oral language development. The program does not include basal text work. The student-to-teacher ratio is maintained at fifteen, or less, to one. During the regular day, extra remedial personnel are hired to help the migrants with their work in groups of twelve or less.

The Self-Contained Migrant Classroom is also based upon the extended day. The student-to-teacher ratio is maintained at thirty, or less, to one. Scope and sequence are easier to maintain with each child because material is presented on the child's own level. Also, this arrangement allows greater flexibility in the vertical movement of children. In this as well as in the Enrichment Program, standard classroom materials and texts are used.

Orr *et al.* (38), in analyzing the Texas Education Agency's projects, reported that students involved in six-month school programs designed to accomplish what is typically taught in nine months "seemed" to achieve approximately the same results as students attending for the full academic year.

Croft (11) reported the calendar metes and bounds of the Texas six-month school year program. School is in session from November, when students return to their home base, until April, when they leave to follow the crops. The school day begins at 8 a.m. and extends to 5 p.m. for six days a week. Only four holidays are included on this academic calendar. Croft indicated that, as of 1967, forty schools housing 32,000 migrant students located in the Rio Grande Valley were surveyed in his study.

The Virginia Program

Conyers (10) described the Virginia summer program as being flexible and ungraded. A teacher aide works with every teacher. The typical day would fit within the following broad format:

8:30	Arrival of children at school (a teacher aide rides the bus to school with the children).
8:30- 9:00	Preparation of the student and serving him breakfast (teachers have to be with children during breakfast).
9:00-10:00	Language arts and enrichment activities including reading, spelling, listening, oral language, grammar, writing, story-telling, and other experiences related to social living.
10:00-10:30	Outdoor activities.
10:30-11:00	Basic mathematics skills (fundamentals in the basic operations).
11:00-12:00	Cultural enrichment: field trips, speakers, social experiences, art crafts, T.V., films.
12:00-12:30	Lunch.
12:30- 1:00	Rest period.
1:00- 2:30	Individual and group projects, research.
2:30- 4:00	Health and physical education.
4:00- 4:30	Supper.

A further unique feature of this program is a library mobile unit. A truck with a full-time librarian goes into the camps. The truck is equipped with educational material, educational games, and recreational equipment. The focus is on the twelve-year-old and older students who are not in the regular program. Going into camp in the afternoon and staying until about 10:00 provides a chance for reaching these young people.

C. Programs Dealing Specifically with Migrant Children at the Primary Level

While the following reports are definitely a part of the migrant elementary school program, it is the author's feeling that ease of reader access to items directly related to the primary level would be desirable.

What are reported as the most effective activities?

On the basis of reported use, the following seem to be the leading effective areas:

1. Language development (speech, reading) is endorsed by Benner and Reyes (2), Braund *et al.* (4), Harris (18), McGowen (29), and Varner (57).
   a. Harris (18) further endorses picture cards of stories, Word Bingo, and dramatization of stories.
   b. McGowen (29) further emphasizes use of the Language Master as being effective.
   c. Endorsement of the aural-language approach is given by the Iowa State Department of Public Instruction (23) and by Varner (57).
2. Cultural enrichment is endorsed by Benner and Reyes (2), Braund *et al.* (4), Harris (18), and the Iowa State Department of Public Instruction (23).
   a. Field trips are singled out as being desirable by Harris (18) and by the Iowa group (23).
   b. Harris (18) mentions talks presented by school workers as also possessing value.
3. Art is noted as having value by Benner and Reyes (2) and by Braund *et al.* (4).
4. Physical education and recreation also receive the endorsement of Benner and Reyes (2) and Braund *et al.* (4).
5. Health services are mentioned as being valuable at the primary level by Benner and Reyes (2), Braund *et al.* (4), Caperton and Fitzpatrick (9), and the Iowa State Department of Public Instruction (23).
6. Activities involving English as a second language are endorsed by Caperton and Fitzpatrick (9).
7. Caperton and Fitzpatrick (9) also consider the waiver of all school fees for migrant youngsters as being important.

Braund *et al.* (4), Caperton and Fitzpatrick (9), and the group from Worcester County, Maryland (58) feel that all programs designed for the primary level should provide individual help as needed. Braund *et al.* (4) further emphasize that such instruction should be planned to correlate with regular class activities.

The report from Naranja, Florida (32) mentions the use of portable kindergarten buildings referred to as "portables" to provide instructional areas where space is a problem. Use use of portables was also observed in Broward County, Florida.

The peer-produced books, mentioned in section B of Part Two, also have application for migrant youngsters at the primary level.

In addition, two empirical studies dealing with migrant children at the primary level are worthy of attention in this section: the first conducted by Smith (46), the second by Heitzman (21).

Smith (46) investigated the effect of selected communication patterns on level of abstraction, length, and complexity of sentence in speech of children. He came to the

conclusion that programs designed to encourage and develop the complexity of response in a child's speech should utilize discussion and role-playing patterns rather than the dyadic (one teacher : one child) pattern. The constraints of the discussion and role-playing patterns allow for greater free verbalization of sentences and phrases which may then be subject to operant reinforcement. Smith further determined that many of the assumptions of verbal destitution and underdeveloped language may be based upon a criterion of nonresponse on the part of the child which may be highly confounded by factors unrelated to the development of the language-speech facilities of the child.

Heitzman (21) investigated the effects of token reinforcement on the primary school migrant child's reading and arithmetic skills. He found that use of token reinforcers with back-up secondary reinforcers (candy, toys, etc. "purchased" with tokens) has a decided effect on the modification of social skills and learning behaviors. Subjects in the token-reinforcement treatment group achieved significantly higher scores in arithmetic and reading skills, as measured by the Wide Range Achievement Test, than their nontoken-reinforcement counterparts.

D. Programs Dealing Specifically with Migrant Children at the Intermediate Grade Levels

What are reported as the most effective activities?

The same criteria that applied to the areas included in the primary level counterpart also apply to this section. The following emerged as the most effective activities based upon endorsed usage:

1. English (speech, reading) was suggested by Benner and Reyes (2), Braund *et al.* (4), and Harris (18).
2. English as a second language was endorsed by Benner and Reyes (2), Braund *et al.* (4), and Caperton and Fitzpatrick (9).
3. Cultural enrichment was stated as worthy of inclusion by Benner and Reyes (2), Braund *et al.* (4), Harris (18), and the Iowa State Department of Public Instruction (23).
4. Physical education and recreation received the endorsement of Benner and Reyes (2), Braund *et al.* (4), and Harris (18).
5. Health services in general were deemed effective by Benner and Reyes (2). Braund *et al.* (4) were more specific in their endorsement of medical-dental services and a food program. Caperton and Fitzpatrick (9) also endorsed this area, adding clothing service to the list. The Iowa State Department of Public Instruction (23) noted that these services are valuable.
6. Waiver of all school-related fees with regard to migrant children was again endorsed by Caperton and Fitzpatrick (9).

Caperton and Fitzpatrick (9) and Braund *et al.* (4) pointed out the value of individualized instruction. Smith's report (46) would tend to modify this to a certain

extent. The Iowa State Department of Public Instruction (23) came out in support of an ungraded classroom organization for migrant youngsters in the intermediate grades.

Braund *et al.* (4) reported that California's program put emphasis on verbal drill with attention to oral conversation at this level. Also given a place of importance was the student's adjustment to his daily problems.

The Oklahoma State Department of Education (37) reported on a linguistic (migrant) laboratory program. This includes children in the primary and lower intermediate grade levels (grades 1-4). Classes are held from 3:50 to 5:00 daily and from 9 a.m. to 12 noon on Saturday. The laboratory is staffed by one full-time instructor, a lab aide, and a part-time secretary. The laboratory is equipped with "Show 'n Tell," "Show 'n Tell" films and records in English and Spanish, library books, tape recorders, record players (with English and Spanish records), an opaque projector, a controlled reader, filmstrips and a filmstrip projector, and an overhead projector. The migrant children see and hear these stimuli in Spanish; they respond by repeating and/or discussing in English. In this way, the program is similar to foreign language labs where students listen to tapes and respond in the language which they are learning.

Blanton *et al.* (3) described a "unit booklet approach" used in the Shafter, California area. It is similar to the curricular plan which has pupils contract to do given work and projects. This was pursued with the migrant students developing their own unit booklets in social studies (map-building activities, geography), mathematics (linear measure, percentage), and science (using the microscope). Some of these unit booklets would emerge as "how-to-do-it" programs.

The Naranja, Florida (32) report tells of another unit approach found effective with migrant youngsters in the intermediate grades. Language teachers developed units on good grooming and personal hygiene in conjunction with good-grooming kits given to the migrant children.

Caperton and Fitzpatrick (9) found the following approaches effective in language arts and mathematics respectively. In New Mexico, the language arts approach was concept inculcation, skill building, and oral language drill. The language arts skill sequence was built around listening models (records, films, the teacher) and listening for comprehension and perception (nursery rhymes, teacher-developed stories and fables). The mathematical approach stressed concepts and processes to meet individual needs (an incidental approach). The mathematics program was designed around concrete materials, purchasing common articles, and construction of charts and graphs.

McGowen (29) reported that one of the innovative components of programs for intermediate level migrant children in Connecticut was individual progress in the area of language structure. The students set their own goals and worked at a pace appropriate to their own learning capabilities and styles.

E. Programs for Migrant Students at the Secondary Level

The greatest compound problem involved in educating the migrant student at the secondary school level appears to be initiating his attendance and keeping him from dropping out. The figures reported by Scott (43) (in section B, Part Two, of the present

monograph) showed the large proportion of migrant children in elementary programs as opposed to the much smaller segment in secondary programs. Soderstrom (47) lends her support to this observation. In her survey of the migrant situation in the State of Idaho, she reported that data indicated a high dropout rate among migrant students. Thirteen of sixteen reporting districts had three or fewer migrant students at the eighth-grade level, the highest level surveyed. Soderstrom stated that these migrants had a dropout rate four times greater than Idaho's statewide average. Caperton and Fitzpatrick (9), in their survey of the New Mexico program, also indicated that a large percentage of junior and senior high school migrant students did not participate in the program.

Why do migrant youth drop out of school?

There seem to be three major reasons emerging from the reports synthesized: (1) financial problems, (2) lack of achievement and motivation, and (3) lack of parental concern.

Murphy (31) pointed out that the reason most of these students drop out is that they must assume their responsibility to keep the family financially solvent. The Office of Education (36) emphasized a related factor indicating that many of the teenaged migrant girls are kept home to babysit so that the rest of the family can work in the field.

Lack of achievement and motivation is discussed by Orr *et al.* (38), who found that migrant nonachievement at the secondary level was quite common. Interesting to note is the disclosure that most of these migrant students blame themselves for this. Tinney (35) reported that migrant teenagers find competition in achievement, clothes, social demands, etc. too much to bear.

The parental concern factor is best spelled out in the report by Orr *et al.* (38). They found that migrant adults give great overt support to education for their children. Parents indicate that they want their children educated so the children will not have to work as hard as the parents do. Most parents, however, seriously doubt that their children will finish high school—rationalizing that "it's so expensive." The general pattern was for migrant children to leave school three or four grades later than their parents. A common observation was the lack of real belief on the part of these students that they would or could finish high school. Most migrant adults felt that their children were not satisfied with their lot. The adults felt that this was due to "learning too many things in school," or "they saw too many things on television." In general, there was the lack of strong goal orientation with regard to secondary education on the part of both students and parents.

Are there special programs to meet young migrants' needs?

Nationally, very little is being done. One program, yet in its infancy, does offer some promise. The "Learn and Earn Experiences" under the administration of J.L. Brown (5) was designed to lessen the financial problem in Broward County, Florida. This program provides opportunities for migrant boys and girls to earn as they learn.

Supervised work experiences provide an opportunity for the students to understand the responsibility of workers, develop attitudes which enable them to be successful employees, acquire pre-vocational skills and information, and earn a small amount of money each week. (This small amount is often on a par with what they might average in the fields.) Youths, ranging in age from fourteen to seventeen, are engaged in activities such as office work, assisting teachers and librarians, and assisting tutors in after-school programs.

The Texas Education Agency (53) reported that provision for economic security through paid educational and vocational training programs was one of the features of its Migrant Compensatory Education Project for students fourteen to twenty-one years of age.

Also in keeping with this overall money factor is the report of Caperton and Fitzpatrick (9) that the New Mexico program for grades 7 to 12 had incorporated the feature of waiver of all fees for migrant students.

The "six-month school year program" in Texas, as reported by Croft (11), also would appear to help alleviate the problem. After receiving schooling in this time period, the migrant students would be available to follow the crops with the family during the work season.

What are reported as the effective activities in secondary programs?

With regard to instructional organization, the Iowa State Department of Public Instruction (23) recommends the ungraded classroom organization. Caperton and Fitzpatrick (9) endorse individualization of instruction as well and add that instruction need not take place only in the regular classroom. Classes can be held in the homes of students, tutors, and/or teachers. Classes can also be held in the farmhouse of employment.

The area encompassing physical and social needs is high on the lists reported by the Oklahoma State Department of Education (37), Benner and Reyes (2), Braund *et al.* (4), Caperton and Fitzpatrick (9), and the Iowa State Department of Public Instruction (23).

Oklahoma (37) reported a six-week program for migrant students in the sixth through tenth grades. Boys and girls were instructed separately. The girls were instructed 5½ hours per day for 5 days per week in home economics, personal care and hygiene, sex education, and cultural aspects. The boys were instructed for the same period of time in health and cultural programs, woodworking, and leather and metal handicrafts.

Other common activities are

1. Cultural enrichment, endorsed by Benner and Reyes (2), Braund *et al.* (4), the Iowa State Department of Public Instruction (23), and the Oklahoma State Department of Education (37).
2. Activity periods, endorsed by the Iowa State Department of Public Instruction (23).

3. Language arts (reading and speech), endorsed by Benner and Reyes (2), Braund *et al.* (4), and Caperton and fFitzpatrick (9).
4. English as a second language, endorsed by Benner and Reyes (2) and Braund *et al.* (4).

F. Migrant Adult Education Programs

Orr *et al.* (38) presented a rather bleak picture of the migrant adults' views on education for themselves. The workers reported that adults in general are not interested in education for themselves; they see no reward in it. They do not think of education as a means for them to better their lot in life. Most of them have experienced so much failure that they seriously doubt their potential for further learning. Migrant adults can rationalize against further education by saying they are "too old" or "too stupid."

The report by Orr *et al.* (38) performed some prognosticating as to what can be done to recruit and retain migrant adults in educational programs. Personal contact is high on the list. Other possibilities for interesting the migrant adult include the use of an "intermediary" peer, counseling, subsistence payment, and relevant courses.

What learning experiences are incorporated in migrant adult education programs?

Benner and Reyes (2) indicated that adult basic education should provide instruction in practical mathematics, English, and Spanish (where appropriate).

Hooper (22) noted that reading skills may well provide the confidence which will lead to increased ability of the migrant adult to manage his life. More specifically, Hooper suggested that the basic education program should cover

1. *Reading*: The adult migrant should be taught to read and comprehend at a level equivalent to the average eighth-grade student.
2. *Writing*: The adult migrant should be taught to complete applications and other employment forms clearly and legibly. He should also be taught to compose simple letters and to make out orders.
3. *Arithmetic*: The adult migrant should gain mastery of basic operations: addition, subtraction, multiplication, and division. Application of the fundamentals to common real situations should be the goal.
4. *Speech and Listening*: The adult migrant should be taught to understand instructions in normal employment and in other conventional situations.

Hooper (22) disagreed with the rationalization presented in the report by Orr *et al.* (38); he noted the realistic possibility that these adults can be retrained and better educated.

Moore and Schufletowski (30) recommended the following areas to be included in migrant adult educational programs: work skills (agricultural and industrial), homemaking skills, health education, child care, and economics education of the practical and useful type.

The report from Naranja, Florida (32) made mention of a community school operated daily from 2 p.m. to 10 p.m. which emphasized skills needed to raise the cultural and educational levels of migrant adults in basic English, arithmetic, reading, and sewing. Simultaneously within the school, arts-and-crafts activities were available for the children so that the entire family could attend at the same time.

Orr *et al.* (38) indicated that vocational training may motivate migrant adults to learn, and this motivation may transfer to other needed educational areas. It was noted that curricular attention to health education and to money education for improving buying habits also has value. The curricular approach receiving endorsement is the problem-centered approach.

Pinnock (39), in reporting on testing procedures, made a statement relevant to this section. He indicated that the more formal the adult basic education, the more easily it may be tested; however, a formal program is not necessarily desirable.

Browning and Northcutt (6) called attention to a specific need for economics education in these programs. These workers pointed out that they found a need to explain Social Security benefits and programs. Migrant adults were shortchanging themselves in many instances. Some had several different cards and numbers; some had none; some gave false numbers—all to the detriment of their personal security.

The Linguistic Laboratory described by the Oklahoma State Department of Education (37) was made available to migrant adults two nights per week. Also with regard to language development procedures, the Hooper report (22) endorsed programed reading instruction for adults. It was pointed out that the native migrant does not suffer from inherent barriers associated with the English language as does the Spanish migrant, and therefore the native migrant benefits from such a procedure.

Caperton and Fitzpatrick (9) related an interesting procedure used in Espanola, New Mexico. A tutor would visit a large migrant family each day to conduct remedial instruction in reading, writing, and arithmetic.

The Migrant Compensatory Education Project, described by the Texas Education Agency (53), contained provisions for economic security through paid educational and vocational training programs for migrants aged fourteen to twenty-one and their families. This was found beneficial, at least for young migrant adults.

Moore and Schufletowski (30) made recommendations regarding educational problems facing migrants "settling down" in one area. These researchers emphasized that more attention be given to community adjustment. This would encompass acculturation, use of community resources, and designation of community responsibilities.

G. Interstate Cooperation for the Education of Migrant Children

What is the overview?

This is an area in which little has been done. It might be assumed that, due to the interstate nature of migrancy, interstate programs in education would be developed. The author discovered that such an assumption does not describe accurately the present

migrant educational scene. This does not mean that nothing is being done, however. The following reports indicate the present status.

Stockburger (51) indicated that an important development in the interstate area has been the formation of the National Committee on the Education of Migrant Children, which works at the national, regional, and state levels encouraging school districts to get and keep the migrant child in school. This committee is particularly interested in expansion and improvement of educational opportunities in those states which the migrants call home.

Some direction from the national level came from a National Model for Program Development and Evaluation, drawn up by a steering committee at the first National Convention of State Migrant Coordinators (33) held in Denver. Six objectives were identified for inclusion:

1. Identify migrant children.
2. Determine basic educational needs of migrant children.
3. Develop programs to meet objectives.
4. Provide for staff development.
5. Bring about interagency and interstate coordination.
6. Bring about total community involvement.

Interestingly, California, with a predominantly intrastate migrant situation, has reported the existence of some interstate features. Braund *et al.* (4) indicated that the state's program included interstate cooperation with Arizona, Oregon, Texas, and Washington. Specifics of this cooperation were exchange of teachers, in-service education of migrant educational staff, and exchange of information on effective techniques in educating migrant children.

The Goodwin report (16) did not tell of existent interstate programs but recommended the development of a corps of teacher aides from among migrants, to travel with and help the children.

Orr *et al.* (38) took a rather negative view toward any type of mobile instructional arrangement. It was their contention that the migrant stream is very unstable as a result of such variables as weather, crop conditions, growing seasons, changes in crops, mechanization, and market variation. These uncertain factors make it difficult to follow a group from the beginning to the end of the season. It was felt that this area needs further research before mobile instruction can be recommended.

What is being done in the area of record transfers?

This seems to be the one interstate feature in which significant progress is being made. Interstate record-transfer systems are endorsed and recommended by Braund *et al.* (4), the California State Department of Education (8), and the Texas Education Agency (53).

The 1969 report of the Subcommittee on Migratory Labor, United States Senate (52), spells out what is presently available. A pilot project in interstate cooperation, to

formulate a record-transfer system, was launched during fiscal year 1967 in Monterey, California. As a result, state coordinators met during the year and developed a record-transfer plan which was implemented in late 1968 by the Office of Education, Migrant Programs Section.

The Uniform Migrant Transfer Record has six major groupings of information:

1. Path, family, and attendance information.
2. Health information.
3. Special test information.
4. Data on special interests, abilities, and needs.
5. Demographic data.
6. Information resulting from analysis of basic student data.

Items 1 through 4 constitute the migrant student record; items 5 and 6 are by-products of the system and are output as special reports.

Each student record, if completely filled in, contains a total of 1,435 characters and represents a student's cumulative academic and health history while attending up to four schools. Any given school thus enters (on the average) fewer than 360 characters of information on each new migrant student enrolled.

In addition to this record, the system incorporates a quick-response "critical data record," containing information needed immediately to facilitate school enrollment. The data are sent via computer to a terminal close to the school and are available for use on the same day that the student arrives for enrollment, if such records are housed in the depository.

At present, selection of the actual number of depositories and the specific intermediate communications hardware has not been reported. The number and location of terminals will depend primarily upon student density in a given location. The Arkansas State Department of Education has been awarded the contract for the data bank. This will be housed, under the directorship of Mr. Winford Miller, in the Arch Ford Education Building, Little Rock, Arkansas.

H. Educational Testing Programs for Migrants

What are procedures and procedural recommendations for test administration?

Theodore J. Pinnock's report (39) offers many worthwhile guidelines. He notes that it is advisable to use more than one type of test; however, if time and/or money problems restrict use to only one, the best choice would be a test battery. Pinnock lists the following as the tests most used in migrant evaluation: *California Achievement Tests, Gray Oral Reading Tests, New Stanford Arithmetic Test, Peabody Picture Vocabulary Test, Wechsler Adult Intelligence Scale, Strong Vocational Interest Blank,* and *Gray-Votaw-Rogers General Achievement Test*. It is Pinnock's feeling that none of these meets the requirements of the migrant group. He sees nothing wrong with teacher-made tests but adds that many teachers lack the necessary sophistication to construct

such tests. Pinnock suggests that the *Mooney Problem Checklist* be used with migrants having some reading knowledge. He states that this test gives the teacher, through interpretation of a counselor, insight into the subject's personal problems.

Pinnock recommends the administration of tests two to three weeks after classes begin. These should not be referred to as tests, so as to ward off test-situation apprehension within the individuals in the group to be tested.

Pinnock feels that, wherever possible, the teacher should administer tests. Further, teachers should be taught to administer the simpler tests. Group demonstration sessions for such testing are advisable.

Pinnock (39) suggests five purposes which test results should serve:

1. To diagnose the needs of students, either individually or as a group.
2. To determine initial placement of students.
3. To measure achievement and progress within a group.
4. To help identify needed modifications in a program.
5. To determine eligibility of students for certification and/or promotion.

The Iowa State Department of Public Instruction (23) reported that migrants were placed in state programs on the basis of standardized test results. Some parts of the tests were revised so that the student was not handicapped too severely by the English language test structure. This report suggested that students be pre- and post-tested, using standardized tests on a yearly basis in their local home-base schools.

Two reports seem to typify the unclear use of standardized tests in migrant programs. Garofalo (15) felt that the use of appropriate, standardized, objective measures is most valuable. The Office of Education report (36) stated that standardized tests are inappropriate for use with migrants. This report indicated that the migrant, in most instances, cannot read English in the first place; further, he cannot understand the tests due to the strong middle-class orientation of material. Schnur (42) also felt that the test used in his study (Forms I and II of Kagan's *Matching Familiar Figures Test*) was not providing a true measure of the children due to its middle-class predisposition.

What observations have been based upon test data?

The California State Department of Education report (8) supported the finding that migrant subjects drop behind resident subjects in the upper grades. At the primary level the two groups remain about even.

The report from Naranja, Florida (32) disclosed some interesting attitudinal findings. It was observed that migrant children possessed well-integrated personality makeups. The children were found to have good self-concepts within their own subculture; however, these good self-concepts rapidly deflate when the children must compete with other subcultures socially and academically. It was further observed that the tight family unit contributes to the good emotional development of migrant children.

The Office of Education (36) reported the following findings in the Texas program. Migrants were tested, and their scores were compared to those of nonmigrants. Only migrant children in the program for three consecutive years were tested. If migrants entered the program in grade 1, they were found to be one month ahead in arithmetic and three months ahead in paragraph meaning, as measured against migrants who entered the program in the third rather than first year. If they entered the program in grade 4, by grade 6 (two years hence) they gained, on the average, one year in paragraph meaning and seven months in arithmetic. This helped to point out that the greater gains of migrant students who remained in the program for more than one year were due to the cumulative effect of the Texas program.

Obviously, much more of the preceding type of empirical analysis needs to be conducted with regard to migrant educational programs and procedures.

I. Health Education for Migrants

In the report by Orr *et al.* (38), it was noted that when migrants are asked the question, "What is the saddest thing in life for you?", the answer was invariably, "Sickness." Yet, as Browning and Northcutt (6) discovered, there is a tremendous lack of knowledge as to cause-effect health relationships on the part of migrants. These reporters cite as an example of lack of health knowledge the observed feeling among migrants that "worms," intestinal parasites, are common among all people. The fact that the majority of migrant adults cannot read health pamphlets only serves to complicate the issue further.

The 1965-66 annual report of the Florida State Migrant Health Project (12) presented some of the problems faced in bringing health education to migrants. Language, especially with Spanish American migrants, presents a barrier. It was noted that Spanish Americans were insulted by being presented health education materials prepared in Spanish. They did not like the idea of being treated like foreigners. Education in sanitation and garbage control was found to be lacking. Some of the positive features of the Florida program were slide showings to aid health education, home nurse visitation, and health education pamphlets written in English (with many illustrations dealing with such topics as roundworms, hookworms, diarrhea, garbage, prenatal care, baby immunization, adult immunization, planned parenthood, venereal disease, and sores).

In a 1967 Florida State Education Department report (13), the controversial topic of sex education emerged. It was concluded that migrant children need sex education at an early age for their own protection. The synthesized literature offers no suggested or enacted programs, however.

Sections B, C, D, and E of Part Two in this synthesis make mention of the importance placed upon health (medical-dental) services and upon instructional emphasis on personal hygiene and grooming. These programs at the elementary and secondary levels offer some promise for a better health-educated migrant population.

J. Parental Involvement in Education

The effect of parental attitude toward, and involvement in, education has been presented already (in section E, Part Two, of the present monograph) as it relates to the secondary level. The present section further examines the implications of parental involvement in migrant education, along with reported recommendations and existent programs.

Marcson (26) emphasized the importance of parent-teacher contacts, suggesting that they be stimulated and developed where they do not yet exist. He pointed out that the two factors most strongly related to scholastic aspirations of migrant students were parental based. These he identified as parental interest in school attendance and financial situation of the parents.

Shannon (45) conducted an empirical study of one of the major factors in parental influence. His study, done in Racine, Wisconsin, used Negro and Mexican American migrants as the sample. Shannon was able to classify subjects as "active," possessed of a change-it-yourself attitude toward the world, or as "passive." He discovered a direct relationship between active and passive value orientation and the aspirations of respondents for their children. Mexican Americans and Negroes who are "active" seek education for their children as a way of implementing their general aspirations. This study offers some possibilities for education being able to predict its supportive elements.

The Florida State Education Department (13) also voiced strong support for parental involvement. It is emphasized in migrant teacher workshops that establishment of better communication between school and parents with regard to the children must be fostered. It is essential that migrant parents come to the schools to participate in PTA's and other activities.

Mathews (27), reporting on California's Union District Project, presents a five-step process used to achieve parental involvement:

1. Extend a personal invitation to migrant parents to participate in an activity.
2. Send bilingual memos home at regular intervals.
3. See that invitations are sent out for special events.
4. Extend an invitation for parents to visit school for a day or more.
5. Extend an invitation for parents to participate as members of the program's Project Advisory Committee.

Pittman (40) reported on an attempt made in the Immokalee Elementary School in Florida. A minority group meeting was conducted to determine what parents wanted for themselves regarding education, with the further objective of a closer parent-school relationship. These adult aspirations also provided insight into areas of importance as perceived by these adults as parents. Six adult prime interest areas were generated:

1. The parents wanted to develop good conversational English.
2. They wanted help in better homemaking procedures.

3. They wanted a fuller knowledge of social customs.
4. They wanted to learn to read and write English.
5. The men wanted knowledge of auto and truck repair.
6. They wanted instruction in farming methods.

K. Teacher Training Programs

Objectives to be achieved in teacher training programs were well-presented in Hooper's paper (22):

1. Show the teachers how to meet the disadvantaged on their own ground.
2. Generate genuine interest in, and respect for, these migrants.
3. Free teachers, through exposure to disadvantaged migrants, of any negative preconceptions they may have about migrants.
4. Show teachers how to use methods adopted to the migrants' learning styles.
5. Help teachers develop a distinctive teaching style.
6. Stress the teacher's awareness of the good things in the cultural behavior and style of these people, such as
   a. The freedom of migrants from the strain which accompanies competitiveness.
   b. The migrant's equalitarianism, informality, and humor.
   c. The freedom of migrants from self-blame and overprotection by parents.
7. Select teachers, teacher aides, and interested volunteers with care.
8. Make teachers aware of the value of instructional materials which reflect the everyday world in which migrants live.

Scott (43), in his survey of educational programs for migrants, reported the finding that in-service training time ranged from a high of 40 days (reported by 1 school) to a low of 1 day (reported by 23 schools). The mean of the 171 reporting school areas turned out to be 5.3 days. Scott further noted that the academic preparation of teachers of migrants compared favorably with that of teachers in other programs. Caperton and Fitzpatrick (9) generated the recommendation, based upon the judgment of administrators involved in such programs, that the best methods to employ were workshops, seminars, and conferences.

The California State Department of Education (8) indicated some of the characteristics of the state's Migrant Teacher Institutes. The first phase consists of a three-week on-campus session. During this time the principles, problems, and practices of teaching migrant children are investigated. The second phase involves supervised practical experience. The conclusion is a two-day, on-campus critique.

The Oklahoma State Department of Education (37) reported a two-week workshop program. This was implemented to instruct the teachers in conversational Spanish so as to enhance their ability to communicate with bilingual students.

Mattera (28) described the teacher education program and philosophy at the New York State Center for Migrant Studies as encompassing lectures, field trips, instructional materials, resource persons, observation of and experience with children, and direct contact with the migrants' environment. The five objectives listed in the Garofalo report (section B, Part Two of the present monograph) provide the structure for this program.

The first objective, self-concept improvement, is approached by providing teachers with sociological, historical, and economic background information about the culture—presented by knowledgeable representatives of national, state, and local public and private sources, as well as by members of the culture. A second teacher exposure to the child's concept of self is provided through direct contact with his environment. The desired end-result is broadening of teachers to have some cognitive and affective bases for understanding these children. Teachers can then learn about ways of improving the self-concept: taking pictures of the children for use on bulletin boards; having the children write or dictate stories; listening to the children; and accepting them.

With regard to the second objective, language and vocabulary development, teachers can be educated to understand the importance of the migrants' language pattern to personal security; this can be built upon positively by utilizing language pattern games and scripts written or dictated by the children, enabling them to communicate outside their culture. These teachers must be sensitized to the realization that vocabulary or concept development techniques must be demonstrated. Many teachers tend to assume that these children understand the meaning of words such as house, bathroom, and lawn. If vocabulary is to have some meaning, teachers must provide a concrete base—real experience (see, touch, use) if possible, for visualizing what words represent. Further, teachers must understand the children's vocabulary if communication essential to learning is to take place.

Skill development, the program's third objective, begins with the assumption that the children's pattern of failure—caused by lack of successful skill development in reading, writing, and arithmetic—makes it imperative for teachers to be able to ascertain readily where children are in these skills and to guide them successfully from step to step. Too often, skill development means drill to teachers, which leads to boredom for children. Adaptation of skill development to the children's world and utilization of games can help to make learning meaningful and fun.

Enrichment experiences (expansion of cultural experience) involve sensitizing teachers to provide experiences often taken for granted but in reality not part of the migrant's repertoire. These include experiences such as visiting the supermarket, the bank, transportation facilities, or library. It is the contention of this program that these enrichment experiences are basic to all work with culturally different children. The more real and meaningful exposure to life they can get, the better the foundation they will have for all learning.

Mattera (28) concluded the description of the New York State program by identifying the goals of the teacher education program for the following areas: self-concept development, language and vocabulary development, skills development, and experiences. It is her contention that the goals can best be achieved if the following experiences are provided:

1. Observation of use of recommended procedures with a group of children.
2. Utilization of these procedures, as well as those developed by the teachers under the guidance of consultants in each field (art, music, audiovisual, physical education, literature, etc.), with these children in a group and on a one-to-one basis.
3. Having videotapes made of these lessons for group and self-evaluation.
4. Opportunity to examine and use (or adapt for use) the latest instructional materials which are housed in a readily accessible materials' center.

No doubt, other states have interesting migrant teacher training programs in existence. The present section has presented an overview of only those about which information was available to the author.

L. Teacher Aides in Migrant Education

Definition of the teacher aide's role in migrant education was one of Southard's objectives (48). Teacher aides should

1. Have skill in the operation of audiovisual devices and machines.
2. Have skill in the construction and production of curricular and instructional materials.
3. Be competent in first-aid skills.
4. Be competent in record-keeping skills.
5. Be able to supervise the playground and lunchroom.
6. Develop a perception of when they can engage effectively in custodial supervision and when the teacher must maintain an active leadership in supervision.

The Texas Education Agency (54) also defined the role of teacher aides as being mostly of a supervisory-assistance, clerical, and monitorial nature. Here it was firmly felt that teacher aides should be under the direct supervision of a certified teacher. They should not be used as substitute teachers. Among specific responsibilities of the aides should be supervision of seatwork and free reading, oral reading of stories, listening to oral reading, and marking papers with the use of a teacher-constructed key.

Southard (48) reported that the Mesilla Valley Public Schools, in New Mexico, provided teacher aides with five eight-hour days of training. One characteristic component which emerged from the program is providing teacher aides with detailed lesson plans that include language-patterning techniques, follow-up activities, and evaluation.

Several reports indicated services of merit provided by teacher aides. (The reader is referred to the discussion of the Mini-Corps presented in section B, Part Two.) These individuals are seen as providing some answer to Ulibarri's (56) plea for teachers who understand the Mexican American culture and are fully aware of the impact of acculturation on the migrant personality. Varner (57) reported on the Imperial County, California schools; he described a program in which junior and senior high school

volunteers become surrogate big brothers and sisters to migrant youngsters. McGowen (29) indicated the single most important commodity as being tender loving care. Broward County, Florida, with its "Learn and Earn" Program reported by Brown (5), offered the possibility of combining the positive effect of aides of high school age upon younger migrants with remuneration designed to keep the aides in school by lessening migrant family financial hardships.

The Office of Economic Opportunity (35) described its unique Foster Grandparent Program which recruits, trains, and employs low-income persons over sixty years of age to serve neglected and deprived children who lack close personal relationships with adults. This program has six major objectives:

1. To create new employment opportunities for older persons.
2. To provide new roles and functions for older people with low incomes, thus enabling them to maintain a sense of dignity and usefulness.
3. To give emotionally deprived children the affection and attention more fortunate children enjoy in their daily relationships with adults.
4. To stimulate innovations in the fields of child care and institutional administration.
5. To demonstrate through the employment of men and women aged sixty and over, with low incomes, a major new resource of responsible workers for communities and social agencies.
6. To lead to new patterns of cooperation among agencies, professions, and those to be served.

PART THREE

PROJECTIONS

A. Unmet Needs in the Education of Migrants

The tragic situation reported by Shannon (45) is one very important to education and is one which educators alone can do very little to remedy. Shannon reported that an occupational ceiling did exist for Mexican Americans and Negroes. Regardless of their education, few Mexican Americans were employed above a level for which an eighth-grade education would suffice and few Negroes above a level for which high school was a sufficient and necessary qualification. Granted, many migrants are not up to even these minimal educational levels, but the educational world cannot afford to sell them a "pie in the sky" idea which will not materialize in the real world about them.

The U.S. Senate Subcommittee on Migratory Labor, 1969 report (52), listed three areas of concern which undercut the substantial gains in migrant education. The first was the lack of a unifying philosophy of migrant education. This involves the answer to the question of "education of what" rather than "education how." Some workers have indicated that present compensatory education programs are simply reinforcing migrancy and making it easier to be a migrant child. These critics state that mechaniza-

tion and changes in the labor market will make migrant farm labor obsolete, perhaps within a few years. This places a high priority upon national goals for migrant education, yet at present there is considerable disagreement among the states over the proper course for migrant education—and more, some states have not even begun to consider the problem at all.

The Senate Subcommittee's second major concern of unmet need was found to be inadequate leadership at the Federal level. It was concluded that

> . . .there are mitigating circumstances in such matters as site visitation and leadership at State-hosted conferences. However, it is clear that there is much room for improvement. A Federal investment of some $45 million must be protected, and the Office of Education can do more than it has done to insure that the funds are used to the best advantage of migrant education. The Office of Education must assume the role of watchdog if we are to realize the "breakthrough" that seems at hand (52, pg. 74).

The third major concern of the Senate Subcommittee involved specific teaching techniques, materials, and educational methodology. Four items emerged in this area:

1. Teacher training has been mentioned frequently as an area which must have more study and development.
2. Migrant education is in need of improved testing devices and techniques.
3. Books, equipment, supplies, and materials need to be designed with migrants in mind: ". . .it is quite useless and futile to attempt to meet the special needs of migrant children with existing materials and 'more of the same' curriculums" (52, pg. 75).
4. In direct opposition to Orr *et al.* (38), the Senate Subcommittee stated, "It seems clear. . .that some form of follow-up and mobile 'refresher' for the migrant child is an immediate need" (52, pg. 75).

The Hooper paper (22) appears in partial agreement with the Senate Subcommittee's third unmet need. Hooper tells of the view among instructors that there is a need for materials written in Spanish to teach English to migrants. Further along the language line was the opinion that young migrant adults of Spanish-speaking background should be taught elementary grammar, emphasizing the verbs so they can say the things they want to say as quickly as possible. Present materials are not applicable to foreign-speaking adults of limited language ability.

The Florida State Education Department (13) produced quite a list of suggested research areas needed to describe present conditions in migrant education. The need was felt for empirical research in the following areas:

1. Comparative studies of different school organizational patterns.
2. The investigation of testing-teaching materials for migrant students including the Spanish-speaking.

3. Determination of the basic minimal competencies needed by migrant students.
4. The analysis and synthesis of programs and materials for teaching migrant youngsters and interpretation of these for practical use by classroom teachers and administrators.

Moore and Schufletowski (30), in the Arizona report, called for research to be conducted on the following problematic aspects of public school migrant programs:

1. Assimilation of migrant children into the schools.
2. Integration of varying racial groups.
3. Methods of accumulating and utilizing adequate records.
4. Prevention of absences and retardation.
5. Identification of emotional and social needs.
6. Stimulation of interest and achievement.

The New York State Center for Migrant Studies (34) identified the following topics as being of top priority in its 1970 funding program:

A study which describes an effective aide-training program.
A study on how the educational growth of the pre-school child can be fostered.
A study which would develop guidelines to help a community set up a program for teaching salable vocational skills.
A study of sex education possibilities for migrant children.
A study of, and development of, guidelines for a model child-care program.
A study of, and development of, guidelines for model educational programs.
A study of the value of role playing in the intellectual development of young children.
A study of ways to incorporate essential pre-school learning experiences into the migrant environment.
A study of assimilation of migrant children into the local community.
A study comparing the achievement of children who are left behind to remain in their home base for schooling with achievement of children who travel with their parents.
A study of ways to encourage enrollment of Mexican Americans into migrant education programs.

B. Recommendations Emerging from Research Reported in This Synthesis

There must certainly be a fine line of distinction between items classified as unmet needs and items categorized under recommendations. The author made this distinction based on the criteria of nonexistent areas and areas which are extensions of programs. The former were included as unmet needs, the latter as recommendations. Recommendations have been organized into two subdivisions: those of a general educational nature and those of a suggested curricular-design emphasis.

General Educational Recommendations

The format used here is a simple listing of the noted recommendations followed by the number(s) of the report(s) in which endorsement has been given. Listing does not imply empirically tested effectiveness.

1. New teacher training programs should be created to deal directly with the needs of the migrant child; existent programs should be expanded (11, 52).
2. The Migrant Unit of the U.S. Office of Education must take the lead in conducting a nationwide discussion of the underlying philosophy of migrant education (52, pg. 75).
3. Future funding of migrant education should include a clause allotting a fixed percentage of Title I funds to the Migrant Unit, U.S. Office of Education, for use in carrying out state-requested leadership functions and assisting in the implementation of interstate migrant projects (52, pg. 75).
4. The Office of Economic Opportunity should work in much closer harmony with the Office of Education, and these agencies should establish a policy of regular interagency workshops to share migrant information and resources whenever possible (52, pg. 75).
5. As a part of its responsibility, this interagency workshop should design and implement a Federal information bank on migrant education programs and funds (52, pg. 76).
6. An interstate teacher exchange program should be instituted by the Office of Education (52, pg. 76).
7. Every effort should be expended to utilize the resources of the Education Professions Development Act; the Bilingual Education Act; and Titles II, III, IV, and V of the Elementary and Secondary Education Act (52, pg. 76).
8. Training programs for day-care-center personnel should be improved and expanded (1).
9. There should be an expansion of programs to compensate for the migrant students' interrupted educations (1).
10. There should be an expansion of programs of acclimation of migrants into the society at large (1, 13, 14).
11. Educational programs for migrant adults should be expanded (1, 38).
12. Efforts should be made to make and keep learning fun for migrants (3).
13. Programs aimed toward creation of a healthy self-image should be expanded (3, 42, 56).
14. Efforts should be made to establish clearly defined rules of classroom behavior and to enhance consistency of enforcement (3).
15. Programs designed to meet social and psychological problems faced by migrants should be expanded (14).
16. Direct financial aid should be made available to migrants. Kleinert (25) noted that attacking migrant problems with the same health and education programs used in the urban ghetto would only fail. Society has two

alternatives: (a) ignore migrants and hope absorption will reduce their number or (b) offer direct financial aid.

17. Migrant educational programs should be taken to the migrant people (30).
18. Within the context of the six-month Texas program, the eight-hour instructional day should be shortened (53).
19. Among those migrants who are bilingual, literacy in both languages should be enforced and reinforced (56).
20. Last but not least, institute where nonexistent and expand where existent, programs of joint effort between business, industry, and education for bettering the lot of the migrant farm laborers of our society (14).

Curriculum -related Recommendations

The format here, as in the previous section, is a simple listing of noted recommendations, followed by the number(s) of the report(s) in which endorsement has been given. No implication should be made that entries are listed in order of importance. Listing does not imply empirically tested effectiveness.

1. Use the Language Master as a tool in speech and language training (4).
2. Use the language-experience approach as the basis of the language arts curriculum (53).
3. Develop educational curricula for day-care centers designed to compensate for the inadequate school potential of migrant youngsters (1).
4. Use individualized attention by sympathetic and knowledgeable adults to improve achievement, behavior, and self-concept for migrant children (2).
5. Make use of basal reading systems supplemented by an intensive phonics program (11).
6. Basic systems of manipulative or tactile learning best appear to fit the needs of migrant children (11).
7. Develop unique curricula for migrant students since standard curricula do not "fit" them (11, 52).
8. Use Spanish in the instruction of Spanish American or Mexican American migrants (11). At present, this is forbidden by law in Indiana and Texas.
9. Teach the intelligent use of money (13).
10. Expand curricula based upon the six-month school-year design (16, 53). Goodwin's report (16) specifically stated that sessions should begin in late fall and terminate in early spring. There should be a longer school day, and the curriculum should be stripped down to basic subject areas.
11. Develop a standard, centrally administered curriculum for migrant students (16).
12. Further study and expand the use of token reinforcement as a means of enhancing migrant students' achievement (21).
13. Limit migrant group instructional size to from ten to fifteen students (26, 30, 38, 46).

14. Make a concerted effort in only one academic area in migrant summer programs (26).
15. Use daily take-home writing projects (26).
16. Provide take-home reading materials (26).
17. Base the migrant adult curriculum on the elementary aspects of civilized living: use of telephones, fallacy of superstitions, use of eyeglasses, and communicative skills. Group dynamics should be an integral part of training, and immediacy of the goals of students should be considered constantly (30).
18. Formal subjects such as mathematics should be de-emphasized due to the uncertainty of the makeup of migrant classes (36, 38).
19. Teachers should make use of teaching units of short duration (38).
20. Teachers should avoid competition among group members (38).
21. Instructional programs should fit the time and work schedules of migrants (38).

C. Further Considerations

The author of this synthesis wishes to conclude with a few observations which express his evaluation of the migrant educational research reported in this monograph and the questions which emerge from its contents.

The first observation relates to the classification of the items contained in this monograph. Easily, 80 percent of the items contained herein are not research in the pure sense of the term. At best, these items might be classified as descriptive research in the broadest interpretation of the term. This situation has inherent negative, as well as positive, ramifications. These descriptions of the migrant problems and of the present programs attempting to meet them define the metes and bounds of this area as they presently exist. In educational programing, one of the first processes is that of thorough task analysis and analysis of the learner. It seems that this 80 percent of the studies and reports has reflected positive progress in this area. These items also serve the purpose of sensitizing an increasing number of the citizens of our country to the plight of the migrant. This aspect of the migrant educational research is not unlike a great deal of educational research in general, which also fits in this ultra-broad interpretation of descriptive research. The negative ramification of this type of reporting lies in its inability to present empirically substantiated methods, materials, curricular organizations, and so forth.

The second observation deals with the remaining percentage of the studies contained herein that are of an empirical nature. It is encouraging to note the presence of such research in the field of migrant education. It is of further encouragement that this type of research appears to be on the increase. This represents a second step in an educational programing design for migrant education—that of instructional prescription.

It emerges from the content of this synthesis that it would seem beneficial to study the following in detail:

1. Is there real, measurable value to be gained from the use of peer-produced books?
2. What are the ideal instructional group sizes for given activities? Are groups of ten to fifteen students measurably more effective, in terms of achievement and accomplishment, than groups of other sizes, as so many reporters felt?
3. Do migrants attain higher levels of achievement when they are segregated into exclusive migrant groups or when they are integrated with residents?
4. What is the measurable effectiveness of home-base instruction felt by some to offer the best educational procedure?
5. How can instructional materials best be designed for migrants? How can such materials, after they have been designed and developed, be tested to determine effectiveness?
6. What can be done to lift the occupational ceiling for migrants so that if we can educate them successfully they can capitalize upon their newly acquired education?

Along with seeking the answers to the preceding questions, the following areas also call for attention at the research and development level:

1. The designing of tests which will validly and reliably measure migrant learners.
2. The broadening of study of the Texas six-month school plan.
3. The further investigation of token reinforcement to determine how far-reaching and long-lasting it can be.
4. The further investigation into the implications of, and shaping of, the conceptual tempo and cognitive style of migrants.
5. Investigations to determine the best classroom curricular organization for the learners and identification of mediating circumstances in which such organizations are effective.
6. The investigation of any measurable effectiveness of mobile instructional units.

In conclusion, it is the sincere hope of the author that this synthesis of current research in migrant education will provide some help and guidelines for those educators involved in the field of migrant education and for those on the threshold of such involvement. It is further hoped that this synthesis will provide some motivation to continue the trend of positive development in migrant education. The author shares the feeling of many other educators that the whole educational scene in America might change positively through breakthroughs in migrant education.

REFERENCES*

1. Barnes, R.F. *et al., The California Migrant Farm Worker, His Family and the Rural Community.* Dept. of Applied Behavioral Sciences, California Univ., Davis, Calif., Apr. 1967. (ED 023 507. Price: MF–$0.25, HC–$2.45.)

2. Benner, R., and Reyes, R., *California Plan for the Education of Migrant Children.* Annual Evaluation Report, Fiscal Year Ending June 30, 1967. California State Dept. of Ed., Sacramento, Calif., 1967. (ED 020 831. Price: MF–$0.25, HC–$1.35.)

3. Blanton, D. *et al., Suggestions for Teaching the Migratory Pupil.* Richland School Dist., Shafter, Calif., 1967. (ED 024 489. Price: MF–$0.50, HC–$3.85.)

4. Braund, R.A. *et al., Compensatory Education in California.* 1966-67 Annual Evaluation Report. Office of Compensatory Ed., Sacramento, Calif., 1967. (ED 023 502. Price: MF–$0.75, HC–$9.90.)

5. Brown, J.L., "Learn and Earn Experiences," Unpublished program report. Broward County Migrant Education Center, Fort Lauderdale, Fla., Dec. 1969.

6. Browning, R.H., and Northcutt, T.J., Jr., *On the Season, A Report of a Public Health Project Conducted Among Negro Migrant Agricultural Workers in Palm Beach County, Florida.* Florida State Board of Health, 1961. (ED 021 656. Price: MF–$0.50, HC–$3.70.)

7. Bryce, H.J., *Earnings of Migratory Farm Workers in Wayne County, New York: 1968.* Monograph No. 1. New York Center for Migrant Studies, Geneseo, N.Y., 1969.

8. California State Department of Education, *California Plan for the Education of Migrant Children.* Evaluation Report, June 1, 1967-June 30, 1968. Office of Compensatory Ed., Sacramento, Calif., 1968. (ED 028 009. Price: MF–$0.25, HC–$1.35.)

9. Caperton, W., and Fitzpatrick, M., *New Mexico Projects for Migratory Children of Migratory Agricultural Workers, State Annual Evaluation Report for Fiscal Year 1967, Title I, ESEA Migrant Program.* New Mexico State Dept. of Ed., Santa Fe, N. Mex., 1967.

10. Conyers, C.L., "Migrant Education in Virginia." Report presented at the Workshop for Teachers of Migrant Children. New York State Center for Migrant Studies, Geneseo, N.Y., Aug. 1968.

11. Croft, F.A., *Some New Approaches to Migrant Education.* Indiana State Dept. of Public Inst., Indianapolis, Ind., 1967. (ED 010 747. Price: MF–$0.25, HC–$0.85.)

*References followed by an ERIC document (ED) number may be ordered from ERIC Document Reproduction Service in either microfiche (MF) or hard copy (HC). Payment must accompany orders totaling less than $5.00. For all orders, add $0.50 for handling. In the United States, add sales tax as applicable. Foreign orders must be accompanied by a 25 percent service charge, calculated to the nearest cent.

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12. Florida State Board of Health, *Florida "State" Migrant Health Project*. Annual Progress Report 1964-65. Jacksonville, Fla., 1965. (ED 011 217. Price: MF–$0.75, HC–$8.65.)

13. Florida State Department of Education, *Planning Florida's Migrant Education Program, Report of the Workshop* (Chinsegut Hill, July 18-27, 1966). Tallahassee, Fla., 1967. (ED 011 471. Price: MF–$0.50, HC–$5.75.)

14. Fuller, G.R., and Phipps, L.J., *Development of Human Resources Through a Vocationally Orientated Educational Program for Disadvantaged Families in Depressed Rural Areas*. Interim Report 2. Illinois Univ., Urbana, Ill., 1968. (ED 022 967. Price: MF–$0.25, HC–$1.00.)

15. Garofalo, V.J., *Evaluation of Migrant Summer School Programs Supported by the New York State Department of Education During 1968, Final Report*. Syracuse Univ., 1968. (ED 026 162. Price: MF–$0.25, HC–$2.25.)

16. Goodwin, W.L., "Bucknell Conference on Learning Problems of the Migrant Child." Report of Proceedings. Bucknell Univ., Lewisburg, Pa., 1967. (ED 023 498. Price: MF–$0.75, HC–$8.40.)

17. Greco, S.R. *et al.*, "Report. Legislative Document (1967), No. 4." New York State Joint Legislative Comm. on Migrant Labor, Albany, N.Y., 1967. (ED 022 902. Price: MF–$0.50, HC–$4.10.)

18. Harris, A.E., *Summer Migrant Project, Unified School District Number 467, Wichita County, Leoti, Kansas*. Evaluation Report. Leoti, Kans., 1967. (ED 019 162. Price: MF–$0.25, HC–$1.55.)

19. Haviland, R.T., A Speech and Language Program for Migrant Children. *New York State Center for Migrant Studies Newsletter*, Vol. 1, No. 1, Sept. 1969.

20. Heffernan, H., *Reality, Responsibility and Respect in the Education of Children From Families Who Follow the Crops*. California State Dept. of Ed., Sacramento, Calif., 1964. (ED 013 675. Price: MF–$0.25, HC–$0.70.)

21. Heitzman, A.J., The Effects of a Token Reinforcement System on the Reading and Arithmetic Skills Learnings of Migrant Primary School Pupils. *New York State Center for Migrant Studies Newsletter*, Vol. 1, No. 1, Sept. 1969.

22. Hooper, R.B., Jr., "Migrant Education." Paper presented at the Seasonal Employees in Agriculture, Inc. Migrant Conf. (June 30, 1967). Seasonal Employees in Agriculture, Inc., Riverhead, N.Y., 1967.

23. Iowa State Department of Public Instruction, *Migrant Programs, Fiscal Year 1968 (School Year 1967-68)*. Annual Evaluation Report. Pupil Personnel Service Division, Des Moines, Iowa, 1968. (ED 028 007. Price: MF–$0.25, HC–$1.85.)

24. Jacobs, C.C., *An Approach to Migrant Bilingual Education*. Delaware State Dept. of Public Inst., Dover, Del., 1967. (ED 022 619. Price: MF–$0.25, HC–$1.70.)

25. Kleinert, E.J., The Florida Migrant. *Phi Delta Kappan*, Vol. LI, No. 2, Oct. 1969, pp. 90-3.

26. Marcson, S., *Elementary Summer Schooling of Migrant Children. Social Structure and Ignorance.* Rutgers Univ., New Brunswick, N.J., 1964.

27. Mathews, B., *Review of Union District Migrant Education Project (San Jose, Calif., 1966).* Narrative Progress Report. Migrant Education Project, San Jose, Calif., 1966.

28. Mattera, G., "Educating Teachers of Children Who Are Culturally Different." Position paper presented at the N.Y. State Ed. Dept. Conf. on College and Univ. Programs for Teachers of Disadvantaged, Yeshiva Univ., New York, N.Y., 1969.

29. McGowen, D., *Educational Program for Children of Migratory Agricultural Workers Under the Provisions of Title I of the ESEA (1965).* Connecticut State Dept. of Ed., Harford, Conn., 1967. (ED 019 165. Price: MF–$0.25, HC–$0.85.)

30. Moore, H.E., and Schufletowski, C., *Southwestern States Developmental Project Relating to Educational Needs of Adult Agricultural Migrants, the Arizona Report.* Arizona State Univ., Tempe, Ariz., 1965. (ED 015 031. Price: MF–$0.50, HC–$5.30.)

31. Murphy, S., *First Come Love and Understanding.* Southern Education Reporting Service, Nashville, Tenn., 1968. (ED 020 042. Price: MF–$0.25, HC–$0.50.)

32. Naranja, Florida Special Education Project for Migrant Children, *An Evaluation of the Special Educational Project for Migrant Children in Dade County Public Schools.* Naranja, Fla., 1966. (ED 023 761. Price: MF–$0.50, HC–$3.15.)

33. National Convention of State Migrant Coordinators, "National Model for Program Development and Evaluation," Steering committee design, Denver, Colo., 1969.

34. New York Center for Migrant Studies, "Possible Study Topics for 1970 Funding," Letter to potential study applicants, Geneseo, N.Y., Dec. 1969.

35. Office of Economic Opportunity, "Foster Grandparents Project." *How to Apply for a Foster Grandparent Project.* OEO, Community Action Program, Washington, D.C.

36. Office of Education, *The Second Annual Report of Title I of the ESEA of 1965 School Year 1966-67.* DHEW, Washington, D.C., 1967. (ED 021 946. Price: MF–$0.75, HC–$7.05.)

37. Oklahoma State Department of Education, *Classroom Projects and Linguistic Laboratory for Non-English Speaking Children of Oklahoma.* Oklahoma City, Okla., 1968. (ED 026 176. Price: MF–$0.25, HC–$2.50.)

38. Orr, C. *et al., Southwestern States Developmental Project Relating to Educational Needs of Adult Agricultural Migrants.* Colorado State Dept. of Ed., Denver, Colo., 1965. (ED 003 439. Price: MF–$0.50, HC–$4.70.)

39. Pinnock, T.J., "Testing in Adult Basic Education Programs Catering to Seasonal and Migrant Farmers." Paper presented at a consultant meeting (April 29, 1967). Educational Projects, Inc., Washington, D.C., 1967. (ED 013 692. Price: MF–$0.25, HC–$0.50.)

40. Pittman, K.C. *et al., Migrant Non-Curricular Supportive Education Program, Pilot Project No. CG 8561 A/1.* Evaluation Report. Collier County Board of Public Inst., Naples, Fla., 1966. (ED 013 130. Price: MF–$0.25, HC–$1.90.)

41. Rodriguez, C.F., *An Analysis of the Mexican American Migrant Labor Force in the Stockbridge Area*. Michigan State Univ., Lansing, Mich., 1966. (ED 026 167. Price: MF–$0.50, HC–$4.95.)

42. Schnur, J.O., A Study of the Possible Improvement of Problem Solving Ability in Migrant Children. *School Science and Mathematics*, Vol. LXIX, No. 9, Dec. 1969, pp. 821-6.

43. Scott, E.B., "A Survey of Educational Programs for Agricultural Migrant Children During 1967." Doctoral dissertation (unpublished). New Mexico State Univ., Las Cruces, N. Mex., May 1968. (ED 026 178. Price: MF–$0.50, HC–$6.05.)

44. Segalman, R., *Army of Despair*. Educational Systems Corp., Washington, D.C., 1968. (ED 021 671. Price: MF–$0.25, HC–$1.30.)

45. Shannon, L.W., "The Study of Migrants as Members of Social Systems." Reprint from Proceedings of the Annual Spring Meeting of the American Ethnological Society. Univ. of Washington Press, Seattle, Wash., 1968. (ED 026 159. Price: MF–$0.25, HC–$1.70.)

46. Smith, D.R., *The Effect of Selected Communication Patterns on Level of Abstraction, Length, and Complexity of Sentence in Speech of Children*. Final Report. State Univ. of New York (Res. Foundation), Buffalo, N.Y., 1969. (ED 028 004. Price: MF–$0.25, HC–$1.80.)

47. Soderstrom, J., "An Investigation of Mexican-American Migrant Children Population in Idaho and the Educational Opportunities Provided by Selected School Districts." Master's thesis, Idaho State Univ., Pocatello, Idaho, 1967. (ED 014 364. Price: MF–$1.00, HC–$10.75.)

48. Southard, J.K. *et al., Project Move Ahead, Development of a Program for Students from Migrant Agricultural Families in the Public Schools of the Mesilla Valley, New Mexico*. Las Cruces School Dist., Las Cruces, N. Mex., 1967. (ED 018 317. Price: MF–$0.25, HC–$1.15.)

49. Stephenson, B., "Peer-Produced Materials and Relevant Reading." Lecture presented at the Second Annual Conf. on Migrant Ed. Board of Public Inst., Broward County, Fla., Dec. 11, 1969.

50. Stockburger, C., *Who is the Migrant Child?* Fact Sheet #2, Nat. Comm. on the Ed. of Migrant Children, 1967.

51. Stockburger, C., *The Educational Problems of the Migrant Child*. Fact Sheet #3, Nat. Comm. on the Ed. of Migrant Children, 1967.

52. U.S. Congress, Senate, Committee on Labor and Public Welfare, Subcommittee on Migratory Labor. *The Migratory Farm Labor Problem in the United States*, 1st Sess., 1969.

53. Texas Education Agency, *Texas Project for the Education of Migrant Children*. Annual Evaluation Report. Division of Compensatory Ed., Austin, Tex., 1967. (ED 023 505. Price: MF–$0.75, HC–$8.10.)

54. Texas Education Agency, *A Guide for Programs for the Education of Migrant Children*. Austin, Tex., 1968. (ED 025 339. Price: MF–$0.50, HC–$3.30.)

55. Tinney, M.W., *A Study of Migrant Workers in Southwest Oklahoma*. Oklahoma State Employment Security Comm., 1965. (ED 020 028. Price: MF–$0.50, HC–$4.35.)

56. Ulibarri, H., *Attitudinal Characteristics of Migrant Farm Workers, First Papers on Migrancy and Rural Poverty, An Introduction to the Education of Mexican-Americans in Rural Areas*. Univ. of Southern California, Los Angeles, Calif., 1968. (ED 026 172. Price: MF–$0.25, HC–$2.70.)

57. Varner, C.L., *English as a Second Language*. Operation Head Start Project 0162, Imperial Co. Schools, El Centro, Calif., 1965. (ED 015 820. Price: MF–$0.25, HC–$2.85.)

58. Worcester County Migrant School, *Evaluation Report*. Snowhill, Md., 1966.